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OCTOBER 2, 2002***

***Operations and Services  
Public Weather Services, NWSPD 10-5***

***WFO WINTER WEATHER PRODUCTS SPECIFICATION***

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**NOTICE:** This publication is available at: <http://www.nws.noaa.gov/directives/>.

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dated 09/09/99;

OML 11-01, filed with C-42, "Update to Winter Weather Warning Policy," dated 11/1/01.

<u>signed</u>	<u>10/02/02</u>
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Director, Office of Climate, Water and Weather Services	

**WFO Winter Weather Products Specification**

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1. Introduction. This procedural directive describes the winter weather products issued by National Weather Service Weather Forecast Offices (WFOs), guidelines associated with these products, and detailed content and format for each product type.
2. Multitiered Concept. The National Weather Service (NWS) winter weather warning program will use, when appropriate, the multitiered concept to increase public awareness and promote a proper response to the impending hazardous winter weather event. Generically, the multitiered concept is:
  - a. **Outlook** – An outlook is used to indicate that a hazardous winter weather event may develop. It is intended to provide information to those who need considerable lead time to prepare for the event.
  - b. **Watch** – A watch is used when the risk of a hazardous winter weather event has increased, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so those who need to set their plans in motion can do so.
  - c. **Warning/Advisory** – These products are issued when a hazardous winter weather event is occurring, is imminent, or has a very high probability of occurrence. A warning is used for conditions posing a threat to life or property. Advisories are for less serious conditions that cause significant inconvenience and, if caution is not exercised, could lead to situations that may threaten life and/or property.

To properly apply the multitiered concept, it is important to have agreement between the forecast staff and other affected WFOs to reach a forecast consensus. This will reduce the on-again, off-again syndrome and geographical/time discontinuities, especially for the longer duration products like outlooks and watches. Proper coordination will enable the NWS to speak with one voice when alerting users to the potential for such an event.

### 3. Winter Storm Outlook (product category SPS).

3.1 Mission Connection. Winter Storm Outlooks provide our customers and partners three-to-five day advance notice of a hazardous winter weather event which has the potential to threaten life or property. The primary goal of this product is to provide information to those who need considerable lead time to prepare for the event.

#### 3.2 Issuance Guidelines.

3.2.1 Creation Software. WFOs should use the AWIPS Watch/Warning/Advisory (WWA) software or other text editors to create and issue Winter Storm Outlooks.

3.2.2 Issuance Criteria. WFOs should issue Winter Storm Outlooks when conditions are favorable for a significant hazardous winter weather event to develop over part or all of the forecast area in the three to five day forecast period, or beyond the point normally covered by a

watch. Winter Storm Outlooks are issued when there is a 30 percent or greater chance of a hazardous winter weather event exceeding local warning criteria

3.2.3 Issuance Time. The Winter Storm Outlook is an event-driven product. WFOs should issue the initial outlook, when the issuance criteria is met. Subsequent outlook updates should occur at least once every 12 hours until a Winter Storm Watch is issued or the weather threat has diminished.

3.2.4 Valid Time. A Winter Storm Outlook is valid from the time of release to the 3-to-5 day forecast expiration time defined in the outlook headline.

3.2.5 Product Expiration Time. The expiration time is generally 12 hours after the issuance time and should coincide with the next scheduled morning or afternoon forecast package.

3.2.6 Event Expiration Time. The event expiration time is described in the outlook headline and is set for the 3-to-5 day forecast time frame.

3.3 Technical Description. Winter Storm Outlooks will follow the format and content described in this section.

3.3.1 Universal Geographic Code Type. Winter Storm Outlooks will use the (Z) form of the UGC.

3.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

3.3.3 Mass News Disseminator Product Type Line. The Winter Storm Outlook MND line is "WINTER STORM OUTLOOK." WFOs may denote the area covered by the outlook, such as "WINTER STORM OUTLOOK FOR SOUTHWEST MICHIGAN."

3.3.4 Content. The content of a Winter Storm Outlook will contain an overview headline and a meteorological discussion.

3.3.4.1 Overview Headline. Include a descriptive headline describing the hazardous weather threat (e.g., heavy snow, ice storm, etc.), expected time of development, and the areas affected. The overview headline will begin and end with three periods "...".

Examples:

...SIGNIFICANT WINTER WEATHER IS POSSIBLE FOR WEST CENTRAL TEXAS  
ON SATURDAY AND SUNDAY...  
...A WINTER STORM WITH HEAVY SNOW MAY BE HEADED TOWARD  
CENTRAL PENNSYLVANIA ON WEDNESDAY...

3.3.4.2 Meteorological Discussion. A general weather synopsis describing the upcoming hazardous weather event. The discussion may include major weather features (development and path of storm systems and cold fronts), their possible impact and the uncertainty involved. The prime objective of the outlook is to inform users of the potential of the upcoming hazardous weather event. Here are some additional guidelines:

- a. Include a general time and location of the hazardous weather event.
- b. Outlooks should contain only qualifying terms, such as “chance of heavy snow,” “significant snowfall possible” or “possibility of damaging ice accumulation.” Definitive, quantitative and specific wording should be reserved for warning situations.
- c. Avoid technical terms and, due to the long-term time frame, describe the inherent uncertainty of the event or storm path.
- d. When applicable, use HPC text and graphic products as guidance.

### 3.3.5 Format.

<u>Product Format</u>	<u>Description of Entry</u>
WWaaii cccc ddhhmm	(WMO Heading)
SPSxxx	(AWIPS ID)
stZ001-005>015-ddhhmm-	(UGC: <u>Z</u> & Product expiration time)
WINTER STORM OUTLOOK	(Product Name or MND)
NATIONAL WEATHER SERVICE city state	(Issuing Office)
time am/pm time_zone day mon dd yyyy	(Issuance time/date)
...<Overview headline statement>...	
<Meteorological discussion of developing winter storm, potential impact, inherent uncertainty of event>	(One to three paragraphs)
<call-to-action (cta) statements>	(Last paragraph, brief)
\$\$	(UGC Delimiter )
Name/Initials/Forecaster ID	(Optional)

**Figure 1.** Generic format for a Winter Storm Outlook.

3.4 Updates, Amendments, and Corrections. Winter storm outlooks are updated at least once every 12 hours until a watch is issued or the weather threat diminishes. If the weather threat diminishes, do not issue a cancellation statement for an outlook. Issue an SPS highlighting the reason the threat diminished.

WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

#### 4. Winter Storm Watches (product category WSW).

4.1 Mission Connection. Winter Storm Watches provide our customers and partners 12-to-48 hour advance notice of a hazardous winter weather event which has the potential to threaten life or property. The primary goal of this product is to provide enough lead time so those who need to set their plans in motion can so do.

#### 4.2 Issuance Guidelines.

4.2.1 Creation Software. WFOs should use the AWIPS WWA software or other text editors to create and issue winter storm watches.

4.2.2 Issuance Criteria. WFOs will issue a Winter Storm Watch when conditions are favorable for a hazardous winter weather event to develop over part or all of the forecast area, but the occurrence is uncertain. WFOs should issue Winter Storm Watches for the second, third, or occasionally fourth forecast periods, when there is a 50 percent or greater chance of a hazardous winter weather event meeting or exceeding local warning criteria.

The only permissible event specific watches are “BLIZZARD WATCH” and “LAKE EFFECT SNOW WATCH.”

4.2.3 Issuance Time. The Winter Storm Watch is an event-driven product. WFOs should issue the initial watch when the issuance criteria is met. Subsequent updates are issued at least once every 12 hours until a warning or advisory is issued or the watch is cancelled.

4.2.4 Valid Time. A Winter Storm Watch is valid from the time of release to the 12 to 48 hour forecast expiration time defined in the watch headline.

4.2.5 Product Expiration Time. The product expiration time is generally 12 hours after the issuance time and should coincide with the next scheduled morning or afternoon forecast package or update.

4.2.6 Event Expiration Time. The event expiration time is described in the watch headline and is set for the 12 to 48 hour forecast time frame.

4.3 Technical Description. Winter Storm Watches will follow the format and content described in this section.

4.3.1 Universal Geographic Code Type. Winter Storm Watches will use the (Z) form of the UGC.

4.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

4.3.3 Mass News Disseminator Product Type Line. The Winter Storm Watch MND line is “URGENT-WINTER WEATHER MESSAGE.”

4.3.4 Winter Storm Watch Content. The content of a Winter Storm Watch may contain an overview section, but will include segmented forecast information.

4.3.4.1 Overview Section. The Winter Storm Watch overview section is optional. If included, it should contain at least one of the following items:

- a. Overview Headline - a general headline statement that summarizes the hazardous weather threat, expected time of development and area affected. The overview headline will begin and end with three periods “...”. For example:

...ANOTHER MAJOR WINTER STORM TO IMPACT THE PACIFIC  
NORTHWEST ON MONDAY AND TUESDAY...  
...A SIGNIFICANT ICE STORM MAY BE HEADED OUR WAY THIS  
WEEKEND...

- b. Overview - a brief, non-technical description of the developing winter storm event. The description may include the location and movement of large scale weather features (e.g., fronts, low pressure systems). The first line of this descriptive information shall be preceded by a period “.”.

4.3.4.2 Segmented Forecast Information. Each segment of the Winter Storm Watch will include a watch headline followed by a descriptive text describing why the watch was issued. Each segment describes a specific hazardous winter weather event.

- a. Watch Headline. The watch headline will use the phrase “WINTER STORM WATCH IN EFFECT” or “LAKE EFFECT SNOW WATCH IN EFFECT” or “BLIZZARD WATCH IN EFFECT” and it will include a general time phrase to describe when the watch is in effect for. The watch headline will also begin and end with three periods “...”.

Examples:

...WINTER STORM WATCH IN EFFECT SUNDAY NIGHT AND  
MONDAY...

...WINTER STORM WATCH IN EFFECT WEDNESDAY THROUGH THURSDAY ...

- b. Watch descriptive Text. This section will provide the following watch information:
- (1) Reason watch was issued.
  - (2) Generalized quantitative snowfall amounts or ice accumulations based upon local warning criteria (e.g., up to 8 inches possible, greater than 6 inches possible, the potential exists for more than one quarter inch of ice accumulation).
  - (3) Explanation of a watch and uncertainty involved. Include the following phrase to define a Winter Storm Watch:  
  
**REMEMBER...A WINTER STORM WATCH MEANS  
CONDITIONS ARE FAVORABLE FOR HAZARDOUS WINTER  
WEATHER IN AND CLOSE TO THE WATCH AREA.**
  - (4) Brief potential impact or Call To Action (CTA) statements. CTAs can be effective in reminding people what actions to take in preparing themselves for the potential severe winter weather event.
- c. Order of Segments. Winter Storm Watches are placed last in the order of segments. This order was designed to place the most important and/or time sensitive information near the beginning of the message. The order of segments is:
- (1) Cancellation
  - (2) Warnings
  - (3) Advisories
  - (4) **Watches**

4.3.5 Format.

<u>Product Format</u>	<u>Description of Entry</u>
WWaaii cccc ddhhmm	(WMO Heading)
WSWxxx	(AWIPS ID)
URGENT - WINTER WEATHER MESSAGE	(Product Name or MND)
NATIONAL WEATHER SERVICE city state	(Issuing Office)
time am/pm time_zone day mon dd yyyy	(Issuance time/date)
...<Overview headline statement>...	(Optional)
.<General weather synopsis of developing winter storm>	(Optional - one to three paragraphs)
stZ001-005>015-ddhhmm-	(UGC: <u>Z</u> & Product expiration time)
zone-zone-zone-	(Zone Names)
INCLUDING THE CITIES OF city...city...city.	(City Names)
time am/pm time_zone day mon dd yyyy	(Issuance time/date)
...WATCH HEADLINE...	
<Descriptive Text>	(Two to three paragraphs)
{Include a brief account of the following information:	
1. Why watch was issued	
2. Potential Impact	
3. Watch definition	
4. Call to Action statements}	
\$\$	(UGC Delimiter)
Name/Initials/Forecaster ID	(Optional after last segment)

**Figure 2.** Generic format for a Winter Storm Watch.

4.4 Updates, Amendments, Cancellations and Corrections. WFOs will update Winter Storm Watches at least once every 12 hours. Update watches whenever there is a change in timing, areal extent, or expected conditions. Winter storm watches either evolve into warnings or advisories or they are canceled.

WFOs will issue a WSW to cancel a watch when the forecaster believes the threat of hazardous winter weather will not develop or not reach warning criteria.

WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

5. Winter Weather Warnings (product category WSW).

5.1 Mission Connection. Winter weather warnings provide our customers and partners advance notice of hazardous winter weather events that threaten life or property.

5.2 Issuance Guidelines.

5.2.1 Creation Software. WFOs should use the AWIPS WWA software or other text editors to create and issue winter weather warnings.

5.2.2 Issuance Criteria. WFOs will issue winter weather warnings when hazardous winter weather is occurring, imminent, or has a high probability of occurrence over part or all of the forecast area. WFOs should issue winter weather warnings for the first, second, or occasionally third forecast periods, when there is an 80 percent or greater chance of a hazardous winter weather event meeting or exceeding local warning criteria.

If the precipitation type can be determined, forecasters should issue the event specific product appropriate for the hazardous weather event. For example, issue a Heavy Snow Warning instead of a Winter Storm Warning when the forecast team is expecting warning criteria snowfall for a zone or group of zones.

If the precipitation type cannot be determined or more than one predominant winter weather element is expected, the forecast team should issue a Winter Storm Warning.

5.2.2.1 Winter Weather Warning Products. WFOs will issue the following winter weather warning products:

Warning Product Name	Issuance Criteria
Blizzard Warning	Sustained wind or frequent gusts greater than or equal to 35 mph accompanied by falling and/or blowing snow, frequently reducing visibility to less than 1/4 mile for three hours or more.
Heavy Snow Warning	Snow accumulation meeting or exceeding locally defined 12 and/or 24 hour warning criteria.
Lake Effect Snow Warning	Widespread or localized lake induced snow squalls or heavy showers which produce snowfall accumulation meeting or exceeding locally defined warning criteria. Lake Effect Snow usually develops in narrow bands and impacts a limited area within a zone(s).
Ice Storm Warning	Ice accumulation meeting or exceeding locally defined warning criteria (typical value is 1/4 inch or more).

Heavy Sleet Warning	Sleet accumulation meeting or exceeding locally defined warning criteria (typical value is 1/2 inch or more).
Winter Storm Warning	Winter weather event having more than one predominant hazard (i.e., heavy snow and blowing snow - see Section 5.2.2.4, snow and ice, snow and sleet, sleet and ice, or snow, sleet and ice) meeting or exceeding locally defined 12 and/or 24 hour warning criteria for at least one of the precipitation elements.

**Table 1.** Winter weather warning product table.

5.2.2.2 Minimum Forecast Snowfall Criteria. Heavy Snow Warnings are based on an average value (rounded up to the nearest inch) of the forecast snowfall range. The forecast average value must meet or exceed the 12 and/or 24 hour local warning criteria depending on the duration of the event. The event duration is from the time winter weather precipitation begins to when it ends.

Local Heavy Snow Warning Criteria (Inches)	Forecast Range (Inches)	Mid Point Value (Inches)	Issue Warning ?
<b>4</b>	3 to 5	4	Yes
	2 to 4	3	No
<b>6</b>	4 to 8	6	Yes
	3 to 6	4.5	No
<b>8</b>	5 to 10	7.5	Yes (round up to 8)
	4 to 8	6	No
<b>12</b>	10 to 14	12	Yes
	6 to 12	9	No

**Table 2.** Example of minimum snowfall forecast criteria for Heavy Snow Warnings.

5.2.2.3 Forecast Criteria Exception. During early and late season storms, and in places where winter weather is rare, WFOs may issue winter weather warnings based on significant public impact events which do not meet local warning criteria. For example, if a storm (such as one with heavy, wet snow or a mixture of snow, freezing rain and sleet) is forecast to significantly affect transportation, commerce or electrical power service, then the event warrants a warning.

5.2.2.4 Winter Storm Warning for Heavy Snow and Blowing Snow Events. WFOs should issue a Winter Storm Warning for Heavy Snow and Blowing Snow events (below blizzard conditions). Heavy Snow and Blowing Snow occurs when:

- a) Snow accumulation meets or exceeds locally defined 12 and/or 24 hour warning criteria
- b) Sustained wind or frequent gusts of 25 to 34 mph (or locally defined) accompanied by falling and blowing snow, occasionally reducing visibility to 1/4 mile or less for three hours or more.

5.2.3 Issuance Time. A winter weather warning is an event-driven product and is initially issued when a hazardous winter weather event is expected to meet or exceed local warning criteria. WFOs should issue updated warnings at least once every six to eight hours until the event ends or is canceled.

5.2.4 Valid Time. A winter weather warning is valid from the time of release to the 12 to 36 hour forecast expiration time defined in the warning headline.

5.2.5 Product Expiration Time. The product expiration time is generally 6 to 8 hours after the issuance time and should coincide with the next expected update or when the event is forecast to end.

5.2.6 Event Expiration Time. The event expiration time is described in the warning headline and is set to the time the warning is forecast to end (e.g., ICE STORM WARNING IN EFFECT THROUGH LATE THIS EVENING).

5.3 Technical Description. Winter weather warnings will follow the format and content described in this section.

5.3.1 Universal Geographic Code Type. Winter weather warnings will use the (Z) form of the UGC.

5.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

5.3.3 Mass News Disseminator Product Type Line. The winter weather warning MND line is "URGENT-WINTER WEATHER MESSAGE."

5.3.4 Content. The content of a winter weather warning may contain an overview section, but will include segmented forecast information.

5.3.4.1 Overview Section. The winter weather warning overview section is optional. If included, it should contain at least one of the following items:

- a. Overview Headline - a general headline statement that summarizes the hazardous weather threat, expected time of development and area affected. The overview headline will begin and end with three periods "...". For example:

...A MAJOR WINTER STORM WILL IMPACT THE PACIFIC  
NORTHWEST...

...ICE STORM WARNINGS ISSUED FOR CENTRAL PENNSYLVANIA  
TODAY...

- b. Overview - a brief, non-technical description of the developing winter storm event. The description may include the location and movement of large scale weather features (e.g., fronts, low pressure systems). The first line of this descriptive information shall be preceded by a period “.”.

5.3.4.2 Segmented Forecast Information. Each segment of a winter weather warning will include a warning headline followed by a descriptive text describing why the warning was issued. Each segment describes a specific hazardous winter weather event.

- a. Warning Headline. The warning headline will include one of the winter weather warning products and general time phrase to describe when the warning is in effect for. The warning headline will also begin and end with three periods “...”.

Examples:

...HEAVY SNOW WARNING IN EFFECT TONIGHT AND MONDAY...

...ICE STORM WARNING REMAINS IN EFFECT THROUGH TUESDAY  
NIGHT...

- b. Warning descriptive Text. This section will include the following warning information:
  - (1) Reason warning was issued. Include winter weather element(s) prompting the warning.
  - (2) Quantitative snowfall amounts or ice accumulation (e.g., 3 to 6 inches, 8 to 12 inches, one quarter to one half inch of ice accumulation).
  - (3) Definition of a warning, when event has not yet begun. Use the following phrase to define a warning:  
  
**REMEMBER...A (HEAVY SNOW/ICE STORM/HEAVY SLEET/WINTER STORM) WARNING MEANS SEVERE WINTER WEATHER CONDITIONS ARE IMMINENT OR HIGHLY LIKELY.**
  - (4) Brief call to action statements, safety rules.
- c. Order of Segments. Winter weather warnings are placed second in the order of segments. This order was designed to place the most important and/or time sensitive information near the beginning of the message. The order of segments is:

- (1) Cancellation
- (2) Warnings**
- (3) Advisories
- (4) Watches

5.3.5 Format.

<u>Product Format</u>	<u>Description of Entry</u>
WWaaii cccc ddhhmm	(WMO Heading)
WSWxxx	(AWIPS ID)
URGENT - WINTER WEATHER MESSAGE	(Product Name or MND)
NATIONAL WEATHER SERVICE city state	(Issuing Office)
time am/pm time_zone day mon dd yyyy	(Issuance time/date)
...<Overview headline statement>...	(Optional)
.<General weather synopsis of winter storm>	(Optional - one to three paragraphs)
stZ001-005>015-ddhhmm-	(UGC: <u>Z</u> & Product expiration time)
zone-zone-zone-	(Zone Names)
INCLUDING THE CITIES OF city...city...city.	(City Names)
time am/pm time_zone day mon dd yyyy	(Issuance time/date)
...WARNING HEADLINE...	
<Descriptive Text>	(Two to three paragraphs)
{Includes the following information:	
1. Why warning was issued (Winter weather element(s) prompting the warning).	
2. Detailed snowfall/ice accumulation/sleet amounts (e.g., 3 to 6 inches, 8 to 12 inches, one half inch of ice accumulation, one inch of sleet).	
3. Timing of the event (beginning, ending, time of heaviest precipitation or worst conditions, duration).	
4. Definition of a warning (before event begins)	
5. Potential impact, call to action statement}	
\$\$	(UGC Delimiter)
Name/Initials/Forecaster ID	(Optional after last segment)

**Figure 3.** Generic format for a winter weather warning.

5.4 Updates, Amendments, and Corrections. WFOs will update winter weather warnings at least once every six to eight hours until the event ends or is canceled. The frequent updates will keep our customers and partners informed on the current and short term aspects of the winter storm. Update warnings whenever there is a change in timing, areal extent, or expected conditions.

WFOs will issue a WSW to cancel a warning when the forecaster believes the weather threat has diminished before the valid time expires.

WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

## 6. Winter Weather Advisories (product category WSW).

6.1 Mission Connection. Winter weather advisories provide our customers and partners advance notice of hazardous winter weather events which could lead to life-threatening situations if caution is not exercised.

## 6.2 Issuance Guidelines.

6.2.1 Creation Software. WFOs should use the AWIPS WWA software or other text editors to create and issue winter weather advisories.

6.2.2 Issuance Criteria. WFOs will issue winter weather advisories for hazardous winter weather that causes significant inconveniences, and if caution is not exercised, could lead to life-threatening situations over part or all of the forecast area. WFOs should issue winter weather advisories for the first, second, or occasionally third forecast periods, when there is an 80 percent or greater chance of a hazardous winter weather event meeting or exceeding local advisory criteria.

If the precipitation type can be determined, forecasters should issue the event specific product appropriate for the hazardous weather event. For example, issue a Snow Advisory instead of a Winter Weather Advisory when the forecast team is expecting advisory criteria snowfall for a zone or group of zones.

If the precipitation type cannot be determined or more than one predominant winter weather precipitation type element is expected, the forecast team should issue a Winter Weather Advisory.

6.2.2.1 Winter Weather Advisory Products. WFOs will issue the following winter weather advisory products:

Advisory Product Name	Issuance Criteria
Snow Advisory	Snowfall accumulation meeting or exceeding locally defined advisory criteria, but remaining below warning criteria.
Lake Effect Snow Advisory	Widespread or localized lake effect snowfall accumulation reaching or exceeding locally defined advisory criteria, but remaining below warning criteria.

Snow and Blowing Snow Advisory	Sustained wind or frequent gusts of 25 to 34 mph (or locally defined) accompanied by falling <u>and</u> blowing snow, occasionally reducing visibility to 1/4 mile or less for three hours or more.
Freezing Rain Advisory	Light ice accumulation (freezing rain and/or freezing drizzle) meeting or exceeding locally defined advisory criteria, but remaining below warning criteria.
Sleet Advisory	Sleet accumulation reaching or exceeding locally defined advisory criteria, but remaining below warning criteria.
Winter Weather Advisory	Winter weather event having more than one predominant hazard (i.e., snow and ice, snow and sleet, or snow, ice and sleet) meeting or exceeding locally defined 12 and/or 24 hour advisory criteria for at least one of the precipitation elements, but remaining below warning criteria.

**Table 3.** Winter weather advisory product table.

6.2.2.2 Minimum Forecast Snowfall Criteria. Snow Advisories are based on an average value (rounded up to the nearest inch) of the forecast snowfall range. The forecast average value must meet or exceed the 12 and/or 24 hour local advisory criteria depending on the duration of the event. The event duration is from the time the snow begins to when it ends.

Local Snow Advisory Criteria (Inches)	Forecast Range (Inches)	Mid Point Value (Inches)	Issue Advisory?
<b>3</b>	2 to 4	3	Yes
	1 to 3	2	No
<b>5</b>	4 to 6	5	Yes
	3 to 5	4	No
<b>7</b>	5 to 8	6.5	Yes (round up to 7)
	3 to 7	5	No

**Table 4.** Examples of minimum snowfall forecast criteria for Snow Advisories.

6.2.2.3 Forecast Criteria Exception. During early and late season winter weather events, and in places where winter weather is rare, WFOs may issue winter weather advisories based on public impact events which do not meet local advisory criteria. For example, if a storm (such as wet snow or a mixture of snow, freezing rain and sleet) is forecast to affect transportation and commerce, then the event warrants an advisory.

6.2.3 Issuance Time. Advisories are event-driven products and are initially issued when a hazardous winter weather event is expected to meet or exceed local advisory criteria. WFOs

should issue updated advisories at least once every six to eight hours until the event ends or is canceled.

6.2.4 Valid Time. Advisories are valid from the time of release to the 12 to 36 hour forecast expiration time defined in the advisory headline.

6.2.5 Product Expiration Time. The product expiration time is generally 6 to 8 hours after the issuance time and should coincide with the next expected update or when the event is forecast to end.

6.2.6 Event Expiration Time. The event expiration time is described in the advisory headline and is set to the time the advisory is forecast to end (e.g., SNOW ADVISORY IN EFFECT THIS AFTERNOON).

6.3 Technical Description. Winter weather advisories will follow the format and content described in this section.

6.3.1 Universal Geographic Code Type. Winter weather advisories will use the (Z) form of the UGC.

6.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

6.3.3 Mass News Disseminator Product Type Line. The advisory MND line is “URGENT-WINTER WEATHER MESSAGE.”

6.3.4 Content. The content of a winter weather advisory may contain an overview section, but will include segmented forecast information.

6.3.4.1 Overview Section. The advisory overview section is optional. If included, it should contain at least one of the following items:

- a. Overview Headline - a general headline statement that summarizes the hazardous weather threat, expected time of development and area affected. The overview headline will begin and end with three periods “...”. For example:

...A MIXTURE OF SNOW...SLEET AND FREEZING RAIN WILL IMPACT  
SOUTHWEST MICHIGAN TONIGHT...  
...LAKE EFFECT SNOW BANDS EXPECTED ACROSS PARTS OF  
NORTHEAST OHIO TODAY AND TONIGHT...

- b. Overview - a brief, non-technical description of the developing winter weather event. The description may include the location and movement of large scale weather features (e.g., fronts, low pressure systems). The first line of this descriptive information shall be preceded by a period “.”.

6.3.4.2 Segmented Forecast Information. Each segment of a winter weather advisory will include the advisory headline followed by a descriptive text describing why the advisory was issued. Each segment describes a specific hazardous winter weather event.

- a. Advisory Headline. The advisory headline will include one of the winter weather advisory products and a general time phrase to describe when the advisory is in effect for. The advisory headline will also begin and end with three periods "...".

Examples:

...SNOW ADVISORY IN EFFECT TONIGHT...

...FREEZING RAIN ADVISORY REMAINS IN EFFECT THIS EVENING...

- b. Advisory descriptive Text. This section will include the following advisory information:
  - (1) Reason advisory was issued. Include winter weather element(s) prompting the advisory.
  - (2) Quantitative snowfall amounts or ice accumulation (e.g., 3 to 6 inches, 2 to 4 inches, trace to one tenth inch of ice/sleet accumulation).
  - (4) Brief call to action statements, safety rules.
- c. Order of Segments. Advisories are placed third in the order of segments. This order was designed to place the most important and/or time sensitive information near the beginning of the message. The order of segments is:
  - (1) Cancellation
  - (2) Warnings
  - (3) Advisories**
  - (4) Watches

6.3.5 Format.

<u>Product Format</u>	<u>Description of Entry</u>
WWaaii cccc ddhhmm	(WMO Heading)
WSWxxx	(AWIPS ID)
URGENT - WINTER WEATHER MESSAGE	(Product Name or MND)
NATIONAL WEATHER SERVICE city state	(Issuing Office)
time am/pm time_zone day mon dd yyyy	(Issuance time/date)
...<Overview headline statement>...	(Optional)
.<General weather synopsis of developing winter storm>	(Optional - one to three paragraphs)
stZ001-005>015-ddhhmm-	(UGC: <u>Z</u> & Product expiration time)
zone-zone-zone-	(Zone Names)
INCLUDING THE CITIES OF city...city...city.	(City Names)
time am/pm time_zone day mon dd yyyy	(Issuance time/date)
...ADVISORY HEADLINE...	
<Descriptive text>	(Two to three paragraphs)
{Includes the following information:	
1. Why advisory was issued.	
2. Detailed snowfall/ice accumulation/sleet amounts (e.g., 2 to 4 inches, 3 to 6 inches, one tenth of an inch of ice or sleet accumulation).	
3. Timing of the event (beginning, ending, time of heaviest precipitation or worst conditions, duration).	
4. Potential impact, call to action statements}	
\$\$	(UGC Delimiter)
Name/Initials/Forecaster ID	(Optional after last segment)

**Figure 4.** Generic format for a winter weather advisory.

6.4 Updates, Amendments, and Corrections. WFOs will update advisories at least once every six to eight hours until the event ends or is canceled. The frequent updates will keep our customers and partners informed on the current and short term aspects of the winter storm. Update advisories whenever there is a change in timing, areal extent, or expected conditions.

WFOs will issue a WSW to cancel an advisory when the forecaster believes the weather threat has diminished before the valid time expires. WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

**APPENDIX A - Winter Weather Product Examples**

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6. Combination of winter weather events .....	A-6

1. Introduction. This section contains guidelines and examples of winter weather products.
2. Winter Storm Outlook. An example of a Winter Storm Outlook.

WWUS84 KOUN 282203  
SPSOKC  
OKZ004>029-033>039-044-TXZ083>085-281000-

WINTER STORM OUTLOOK  
NATIONAL WEATHER SERVICE NORMAN OK  
403 PM CST SUN JAN 27 2002

...ICE STORM POSSIBLE FOR PARTS OF SOUTHERN PLAINS BY MIDWEEK...

INGREDIENTS ARE COMING TOGETHER FOR A POSSIBLE ICE STORM EVENT AS A STORM SYSTEM MOVES EAST INTO THE SOUTHERN PLAINS LATE TUESDAY INTO WEDNESDAY. COLD AIR WILL SPREAD SOUTH TONIGHT THROUGH WEDNESDAY...WHILE WARM AND MOIST AIR WILL MOVE NORTH OVERRIDING THE SHALLOW COLD AIR. IF SURFACE TEMPERATURES FALL AND REMAIN BELOW FREEZING...THE COMBINATION OF WEATHER ELEMENTS HAVE THE POTENTIAL TO PRODUCE SIGNIFICANT ACCUMULATIONS OF ICE TUESDAY NIGHT AND WEDNESDAY ACROSS THE OUTLOOK AREA.

PERSONS IN...OR PLANNING TRAVEL THROUGH...WESTERN... CENTRAL AND NORTHERN OKLAHOMA SHOULD BE AWARE OF THE POSSIBILITY OF ICE TUESDAY NIGHT AND WEDNESDAY. PAY CLOSE ATTENTION TO THE LATEST WEATHER FORECAST INFORMATION AS THIS WINTER WEATHER SITUATION CONTINUES TO UNFOLD.

3. Winter Storm Watch. An example of a late second period Winter Storm Watch.

WWUS44 KAMA 262104  
WSWAMA

URGENT - WINTER WEATHER MESSAGE  
NATIONAL WEATHER SERVICE AMARILLO TX  
304 PM CST FRI JAN 26 2001

.A STRONG UPPER LEVEL STORM SYSTEM LOCATED JUST OFF THE CALIFORNIA COAST FRIDAY AFTERNOON IS FORECAST TO MOVE INTO THE DESERT SOUTHWEST BY SATURDAY EVENING...THEN INTO THE SOUTHERN AND CENTRAL PLAINS BY MONDAY MORNING. AT THE SAME TIME...A SURGE OF COLD CANADIAN AIR WILL MOVE SOUTH INTO THE REGION TONIGHT. IN ADDITION...PLENTY OF MOISTURE WILL MOVE BACK INTO THE AREA TONIGHT AND SATURDAY AND BE LIFTED OVER THE COLD AIR. THESE ELEMENTS WILL SET THE STAGE FOR WINTER WEATHER CONDITIONS ON SATURDAY AND INTO SUNDAY.

OKZ001>003-TXZ001>020-270400-  
ARMSTRONG-BEAVER-CARSON-CIMARRON-COLLINGSWORTH-DALLAM-DEAF  
SMITH-DONLEY-GRAY-HANSFORD-HARTLEY-HEMPHILL-HUTCHINSON-LIPSCOMB  
-MOORE-OCHILTREE-OLDHAM-POTTER-RANDALL-ROBERTS-SHERMAN-TEXAS-  
WHEELER-  
INCLUDING THE CITIES OF...AMARILLO...BEAVER...BOISE CITY...BOOKER...  
BORGER...CANADIAN...CANYON...CLARENDON...CLAUDE...DALHART...DUMAS...  
GUYMON...HARTLEY...HEREFORD...MIAMI...PAMPA...PANHANDLE...PERRYTON...  
SHAMROCK...SPEARMAN...STRATFORD...VEGA...WELLINGTON  
304 PM CST FRI JAN 26 2001

...WINTER STORM WATCH IN EFFECT FROM SATURDAY AFTERNOON THROUGH SUNDAY...

PRECIPITATION IS EXPECTED TO BEGIN SATURDAY IN THE EARLY AFTERNOON HOURS ACROSS MOST OF THE TEXAS AND OKLAHOMA PANHANDLES. PRECIPITATION WILL BE IN THE FORM OF SNOW ACROSS MUCH OF THE AREA WITH SLEET MIXED WITH SNOW OCCURRING ACROSS THE SOUTHEAST TEXAS PANHANDLE. GREATER THAN FOUR INCHES OF SNOW IS POSSIBLE WITH SOME LOCATIONS RECEIVING AS MUCH AS EIGHT INCHES. THERE IS STILL SOME UNCERTAINTY AS TO THE EXACT TRACK OF THE UPPER LEVEL STORM SYSTEM...AND SNOW TOTALS COULD CHANGE. THE SNOW IS EXPECTED TO CONTINUE THROUGH SUNDAY AND BEGIN TO TAPER OFF SUNDAY NIGHT. PREPARATIONS SHOULD BE MADE NOW FOR HAZARDOUS WINTER WEATHER CONDITIONS ON SATURDAY AND SUNDAY.

REMEMBER...A WINTER STORM WATCH MEANS CONDITIONS ARE FAVORABLE FOR HAZARDOUS WINTER WEATHER IN AND CLOSE TO THE WATCH AREA. STAY TUNED TO NOAA WEATHER RADIO...COMMERCIAL TELEVISION OR RADIO STATIONS...OR YOUR CABLE TELEVISION SERVICE PROVIDER FOR LATER STATEMENTS FROM THE NATIONAL WEATHER SERVICE CONCERNING THIS POTENTIALLY DANGEROUS WINTER WEATHER EVENT.

\$\$

WOLTERS

4. Winter Weather Warning. An example of a Heavy Snow Warning.

WWUS43 KOAX 011030  
WSWOMA

URGENT - WINTER WEATHER MESSAGE  
NATIONAL WEATHER SERVICE OMAHA NE  
430 AM CST FRI MAR 1 2002

...HEAVY SNOW TO HIT PARTS OF EASTERN NEBRASKA AND WESTERN IOWA TODAY...

.THE NATIONAL WEATHER SERVICE AT OMAHA HAS UPGRADED ITS WINTER STORM WATCH FOR PARTS OF EASTERN NEBRASKA AND WESTERN IOWA...TO A HEAVY SNOW WARNING. THE WARNED AREA HAS BEEN ENLARGED FROM THE PREVIOUS WATCH.

A STRONG STORM SYSTEM WILL TRACK ACROSS SOUTHERN KANSAS TODAY AND SOUTHERN MISSOURI TONIGHT. MOISTURE WILL EXTEND WELL NORTH OF THE STORM TRACK. LIGHT SNOW HAS ALREADY BEGUN TO FALL ACROSS THE AREA. THE SNOW WILL BECOME MORE WIDESPREAD DURING THE MORNING HOURS...AND BECOME HEAVY THIS AFTERNOON AND THIS EVENING. AT LEAST 6 TO 8 INCHES OF SNOWFALL IS EXPECTED IN THE WARNED AREA.

IAZ055-056-069-079-080-NEZ044-045-050>053-065>067-078-011900-  
BUTLER-CASS-DODGE-DOUGLAS-HARRISON-LANCASTER-MILLS-MONTGOMERY-  
POTTAWATTAMIE-SALINE-SARPY-SAUNDERS-SEWARD-SHELBY-WASHINGTON-  
INCLUDING THE CITIES OF...LINCOLN AND OMAHA  
430 AM CST FRI MAR 1 2002

...HEAVY SNOW WARNING IN EFFECT THIS AFTERNOON AND TONIGHT....

LIGHT SNOW WILL BECOME MORE WIDESPREAD AND HEAVY THIS AFTERNOON... WITH 8 TO 12 INCHES OF TOTAL SNOWFALL ACCUMULATION BEFORE THE SNOW ENDS LATE TONIGHT. NORTHEAST WINDS AT 15 TO 25 MPH WILL BECOME NORTH TONIGHT...PRODUCING SOME BLOWING AND DRIFTING OF SNOW.

REMEMBER...A HEAVY SNOW WARNING IS ISSUED WHEN SEVERE WINTER WEATHER IS IMMINENT OR HIGHLY LIKELY.

PEOPLE PLANNING TO TRAVEL TODAY OR TONIGHT SHOULD BE PREPARED FOR DETERIORATING AND HAZARDOUS DRIVING CONDITIONS. IF TRAVEL IS NECESSARY...MAKE SURE THAT YOUR CAR IS WINTERIZED AND IN GOOD WORKING ORDER. LISTEN TO NOAA WEATHER RADIO OR OTHER MEDIA OUTLETS FOR LATER FORECASTS AND STATEMENTS REGARDING THIS WINTER STORM.

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POLLACK/ZAPOTOCNY

5. Winter Weather Advisory. An example of a Lake Effect Snow Advisory.

WWUS43 KGRR 270854  
WSWGRR

URGENT - WINTER WEATHER MESSAGE  
NATIONAL WEATHER SERVICE GRAND RAPIDS MI  
400 AM EST THU DEC 27 2001

...LAKE EFFECT SNOW ADVISORY CONTINUES THROUGH THIS AFTERNOON FOR PORTIONS OF WEST MICHIGAN...

.LAKE EFFECT SNOW CONTINUES TO MOVE INLAND OFF OF LAKE MICHIGAN AS COLD AIR RIDES OVER ITS WARMER WATERS. THE HEAVIEST SNOW HAS FALLEN OVER MUSKEGON...MONTCALM...KENT...OTTAWA...ALLEGAN AND VAN BUREN COUNTIES OVERNIGHT. AN ADDITIONAL 2 TO 5 INCHES OF ACCUMULATION IS EXPECTED TODAY OVER THESE COUNTIES INTO THIS AFTERNOON...BEFORE DIMINISHING TO SCATTERED SNOW SHOWERS BY THIS EVENING.

MIZ050-051-056-057-064-071-271615-  
ALLEGAN-KENT-MONTCALM-MUSKEGON-OTTAWA-VAN BUREN-  
INCLUDING THE CITIES OF...STANTON...SOUTH HAVEN...MUSKEGON...  
HOLLAND...GRAND RAPIDS...ALLEGAN AND HARTFORD  
400 AM EST THU DEC 27 2001

...LAKE EFFECT SNOW ADVISORY REMAINS IN EFFECT THROUGH THIS AFTERNOON...

AN ADDITIONAL 2 TO 5 INCHES OF LAKE EFFECT SNOW CAN BE EXPECTED TODAY. THE SNOW IS EXPECTED TO DIMINISH TO SCATTERED SNOW SHOWERS IN MOST AREAS BY THIS EVENING.

IF YOU PLAN ON TRAVELING TODAY EXPECT SNOW COVERED ROADS THAT WILL BE SLICK. ALSO...GIVEN THE NATURE OF LAKE EFFECT SNOW...VISIBILITY CAN BECOME REDUCED VERY RAPIDLY...SOMETIMES TO NEAR ZERO OVER ONLY A SHORT DISTANCE. PLAN ON EXTRA TRAVEL TIME BECAUSE CONDITIONS WILL REQUIRE YOU TO SLOW DOWN.

\$\$

MJS/JK

6. Combination of winter weather events. Example of a WSW with five segments containing two cancellations, two warnings and one advisory.

WWUS44 KOUN 280458  
WSWOKC

URGENT - WINTER WEATHER MESSAGE  
NATIONAL WEATHER SERVICE NORMAN OK  
1057 PM CST SAT JAN 27 2001

.AN INTENSE STORM SYSTEM WILL MOVE SLOWLY EASTWARD FROM ARIZONA TO THE SOUTHERN PLAINS STATES THROUGH THE WEEKEND. PRECIPITATION WILL CONTINUE ACROSS OKLAHOMA AND WESTERN NORTH TEXAS OVERNIGHT...AND MAY BE HEAVY AT TIMES... ESPECIALLY ON SUNDAY.

MODERATE TO HEAVY PRECIPITATION IS FORECAST TO ACCOMPANY THIS STORM SYSTEM OVERNIGHT... CREATING THE POTENTIAL FOR A SIGNIFICANT AMOUNT OF FREEZING RAIN...SLEET AND SNOW. AT THIS TIME... IT APPEARS THAT THE BEST POTENTIAL FOR SNOW WILL BE ACROSS EXTREME NORTHWEST OKLAHOMA. MEANWHILE... THE AREA FROM THE SOUTHWEST CORNER OF OKLAHOMA... NORTHEAST INTO NORTH-CENTRAL OKLAHOMA APPEARS TO BE THE TARGET OF A MAJOR ICE STORM. VERY SLOWLY RISING TEMPERATURES... JUST ABOVE FREEZING... WILL LIKELY SPARE THE AREA ALONG AND SOUTHEAST OF INTERSTATE 44 FROM SIGNIFICANT ICE ACCUMULATIONS.

THE LATEST DATA CONTINUE TO SUGGEST THAT THIS STORM HAS THE POTENTIAL TO PRODUCE VERY DANGEROUS AND POSSIBLY LIFE-THREATENING

ICE ACCUMULATIONS FROM 1 TO 2 INCHES IN AREAS FROM SOUTHWEST INTO NORTH-CENTRAL OKLAHOMA. THIS AREA INCLUDES THE CITIES OF ELK CITY... HOBART... WEATHERFORD... WATONGA... ENID... CHEROKEE... MEDFORD AND FAIRVIEW.

THIS STORM SYSTEM MAY ALSO CONTINUE TO AFFECT THE AREA SUNDAY NIGHT AND INTO MONDAY. AS A RESULT... WARNINGS AND ADVISORIES MAY NEED TO BE EXTENDED BEYOND SUNDAY WITH LATER FORECASTS.

OKZ025>029-044-TXZ086>088-281100-  
BAYLOR TX-CLEVELAND OK-COTTON OK-GRADY OK-KNOX TX- LINCOLN  
OK-MCCLAIN OK-OKLAHOMA OK-WICHITA TX-  
INCLUDING THE CITIES OF...CHICKASHA OK...NORMAN OK...OKLAHOMA CITY OK  
...WICHITA FALLS TX  
1057 PM CST SAT JAN 27 2001

...ICE STORM WARNING IS CANCELED...

TEMPERATURES ARE EXPECTED TO REMAIN NEAR OR JUST ABOVE FREEZING ALONG AND SOUTHEAST OF INTERSTATE 44 IN CENTRAL OKLAHOMA. THIS SHOULD PREVENT SIGNIFICANT ICE ACCUMULATION IN THIS AREA. PERIODS OF COLD RAIN WILL CONTINUE OVERNIGHT AND INTO SUNDAY.

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OKZ039-045-TXZ089-090-281100-  
ARCHER TX-CLAY TX-JEFFERSON OK-STEPHENS OK-  
INCLUDING THE CITY OF...DUNCAN OK  
1057 PM CST SAT JAN 27 2001

...FREEZING RAIN ADVISORY IS CANCELED...

TEMPERATURES IN THE HENRIETTA TEXAS THROUGH DUNCAN OKLAHOMA AREA HAVE WARMED TO SEVERAL DEGREES ABOVE FREEZING. THE TEMPERATURE IS NOT EXPECTED TO GO BELOW FREEZING OVERNIGHT OR SUNDAY... SO PRECIPITATION IS EXPECTED TO BE MOSTLY IN LIQUID FORM... ALTHOUGH SOME SLEET AND SNOW WILL BE POSSIBLE AT TIMES.

\$\$

OKZ006>008-011>024-033>036-TXZ083-281100-  
ALFALFA OK-BECKHAM OK-BLAINE OK-CADDO OK-CANADIAN OK-CUSTER OK-  
DEWEY OK-GARFIELD OK-GRANT OK-GREER OK-HARDEMAN TX-HARMON OK-  
JACKSON OK- KAY OK-KINGFISHER OK- KIOWA OK- LOGAN OK-MAJOR  
OK-NOBLE OK-PAYNE OK-ROGER MILLS OK-WASHITA OK-

INCLUDING THE CITIES OF....ALTUS OK...CLINTON/WEATHERFORD OK...ELK CITY  
OK...EL RENO OK...ENID OK...GUTHRIE OK...HOBART OK...PONCA CITY OK...  
STILLWATER OK  
1057 PM CST SAT JAN 27 2001

...ICE STORM WARNING IN EFFECT TONIGHT AND SUNDAY...

AN ICE STORM WARNING IS IN EFFECT FOR MOST OF OKLAHOMA TO THE  
NORTHWEST OF INTERSTATE 44. PERIODS OF FREEZING RAIN WILL CONTINUE  
THROUGH TONIGHT AND SUNDAY. SCATTERED THUNDERSTORMS ARE  
EXPECTED TO PRODUCE HEAVIER ACCUMULATIONS OF ICE. THE PRECIPITATION  
MAY GRADUALLY TRANSITION TO A SNOW/SLEET MIXTURE SUNDAY EVENING  
BEFORE ENDING AROUND MIDNIGHT. DANGEROUS TOTAL ICE STORM  
ACCUMULATIONS OF 1 TO 2 INCHES IS EXPECTED BY SUNDAY EVENING.

PEOPLE ARE URGED TO BE PREPARED FOR PROLONGED POWER OUTAGES AND  
TREACHEROUS TRAVEL CONDITIONS. IF YOU MUST TRAVEL...ALLOW EXTRA  
TIME TO REACH YOUR DESTINATION...LET SOMEONE KNOW YOUR TRAVEL  
PLANS...AND CARRY A CELLULAR PHONE IF YOU HAVE ONE.

\$\$

OKZ004-005-009-010-281100-  
ELLIS OK-HARPER OK-WOODS OK-WOODWARD OK-  
INCLUDING THE CITY OF...WOODWARD OK  
1057 PM CST SAT JAN 27 2001

...WINTER STORM WARNING IN EFFECT TONIGHT AND SUNDAY...

A MIXTURE OF SNOW... SLEET AND SOME FREEZING RAIN IS EXPECTED OVER  
NORTHWEST OKLAHOMA TONIGHT THROUGH SUNDAY... WITH THE  
PRECIPITATION TRANSITIONING TO MOSTLY SNOW LATE TONIGHT AND  
SUNDAY. TOTAL STORM ACCUMULATION OF SNOW... SLEET AND ICE FROM 4 TO  
6 INCHES IS LIKELY. HOWEVER... TOTAL ACCUMULATIONS WILL BE HIGHLY  
DEPENDENT ON WHAT TYPE OF PRECIPITATION IS DOMINANT. IN AREAS WHERE  
THE PRECIPITATION TYPE IS MOSTLY SNOW...AMOUNTS UP TO 10 INCHES WILL  
BE POSSIBLE.

PEOPLE ARE URGED TO BE PREPARED FOR PROLONGED POWER OUTAGES AND  
TREACHEROUS TRAVEL CONDITIONS. IF YOU MUST TRAVEL...ALLOW EXTRA  
TIME TO REACH YOUR DESTINATION... LET SOMEONE KNOW YOUR TRAVEL  
PLANS...AND CARRY A CELLULAR PHONE IF YOU HAVE ONE.

\$\$

OKZ037-038-TXZ084-085-281100-  
COMANCHE OK-FOARD TX-TILLMAN OK-WILBARGER TX-  
INCLUDING THE CITIES OF...LAWTON OK...VERNON TX  
1057 PM CST SAT JAN 27 2001

...FREEZING RAIN ADVISORY IN EFFECT TONIGHT AND SUNDAY...

THE ADVISORY IS IN EFFECT FOR THE AREA FROM SOUTHWEST OF VERNON TEXAS... NORTHEAST TO LAWTON OKLAHOMA. PERIODS OF RAIN OR FREEZING RAIN WILL CONTINUE THROUGH TONIGHT AND SUNDAY. SCATTERED THUNDERSTORMS PRODUCING HEAVIER RAINFALL ARE ALSO POSSIBLE. THE PRECIPITATION MAY GRADUALLY TRANSITION TO A MIXTURE OF SLEET... FREEZING RAIN AND SNOW...SUNDAY MORNING... AND EVENTUALLY TO ALL SNOW LATE SUNDAY AND AND SUNDAY NIGHT. SOME ICE ACCUMULATION IS LIKELY... ESPECIALLY ON TREES AND POWER LINES... AND POSSIBLY ON BRIDGES AND OVERPASSES.

IF YOU MUST TRAVEL...ALLOW EXTRA TIME TO REACH YOUR DESTINATION.

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**APPENDIX B - Winter Weather Definitions**

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1. Introduction. This section contains definitions of winter weather elements used in the winter weather products.

2. Hazardous Winter Weather. Hazardous winter weather is a winter weather event that endangers life or property, provides an impediment to commerce, or if proper precaution is not taken, can become life threatening.

3. Hazardous Winter Weather Phenomena Definitions.

3.1 Snow. Frozen precipitation in the form of (white or translucent) ice crystals which steadily falls for several hours or more. Qualifiers, such as occasional or intermittent, are used when a steady, prolonged (for several hours or more) fall is not expected.

3.1.1 Heavy Snow. Heavy Snow generally means:

- a. Snowfall accumulating to 4 inches or more in depth in 12 hours or less; or
- b. Snowfall accumulating to 6 inches or more in depth in 24 hours or less.

Some variation in the criteria for heavy snowfall in certain sections of the country may be established at the option of the regional director. This includes both higher thresholds for regions that are accustomed to snow and lower thresholds for areas where lesser accumulations can cause significant impacts. Such variations should be formalized through the issuance of Regional Supplements.

Express snowfall amounts as a range of values, e.g., "8 to 12 inches." However, in heavy snow situations where there is considerable uncertainty concerning the range of values, it may be more appropriate to use phrases, such as "...up to 12 inches..." or alternatively "...8 inches or more..."

3.1.2 Snow Squalls. Snow squalls are intense, but limited duration, periods of moderate to heavy snowfall, accompanied by strong, gusty surface winds and possibly lightning (generally moderate to heavy snow showers). Snow accumulation may be significant. Regional variation to this definition is expected. For example, close to the Great Lakes, snow squalls are usually locally intense, narrow bands of heavy snow that can extend over long distances, persist for many hours, and produce 6 inches or more of snow in 12 hours or less.

3.1.3 Snow Showers. Snow showers are brief periods of snowfall in which intensity can be varied and may change rapidly. Some accumulation is possible. A snow shower in which light snow falls for a few minutes is typically called a snow flurry.

3.1.4 Snow Flurries. Snow flurries are short duration (generally a few minutes) light snow showers with no measurable accumulation (trace category).

3.1.5 Blowing Snow. Blowing snow is snow lifted from the surface of the earth by the wind to a height of 6 feet or more above the surface (higher than drifting snow), and blown about in such quantities that horizontal visibility is reduced to less than 7 statute miles. Blowing snow is usually accompanied by drifting snow.

3.1.6 Drifting Snow. Drifting snow is snow lifted from the surface of the earth by the wind to a height of less than 6 feet above the surface. Drifting snow may occur during or after a snowfall. Drifting snow is usually associated with blowing snow.

3.2 Blizzard. A blizzard means that the following conditions are expected to prevail for a period of 3 hours or longer:

- a. Sustained wind or frequent gusts to 35 miles an hour or greater; and
- b. Considerable falling and/or blowing snow (i.e., frequently reducing visibility below 1/4 mile).

Although there is no set temperature requirement for blizzard conditions, the life-threatening nature of the low temperatures in combination with the other hazardous conditions of wind, snow, and poor visibility increases dramatically when the temperature falls below 20°F.

3.3 Freezing Rain or Drizzle. Rain or drizzle that falls in liquid form but freezes upon impact with the ground or exposed objects. Small accumulations of ice can cause driving and walking difficulties while heavy accumulations produce extremely dangerous and damaging situations primarily by pulling down trees and utility lines.

3.4 Ice Storm. An ice storm is used to describe occasions when damaging accumulations of ice are expected during freezing rain situations. Significant accumulations of ice pull down trees and utility lines resulting in loss of power and communication. These accumulations of ice make walking and driving extremely dangerous. Significant ice accumulations are usually accumulations of 0.25 inches (one quarter of an inch) or greater. Some variations in the criteria for "significant" accumulations of ice may be established by the regional director and formalized through the issuance of Supplements. This includes both higher thresholds for regions that are accustomed to ice events and lower thresholds for areas where lesser amounts can cause major problems.

3.5 Sleet. Sleet is a type of precipitation consisting of transparent or translucent pellets of ice, 5 mm or less in diameter. These pellets of ice usually bounce when hitting hard ground and make a sound upon impact.

3.5.1 Heavy Sleet. Heavy sleet is a relatively rare event defined as an accumulation of ice pellets covering the ground to a depth of 1/2 inch or more.